

## Amendments to the Claims:

*This listing of claims will replace all prior versions, and listings, of claims in the application:*

1. (Currently Amended) A method for converting[[,]] organic material (~~as hereinbefore defined~~) into a usable form of energy by means of microwaves, the method comprising the following steps:

(a) drying organic material by hot-air from conventional oven or from an exhaust waste heat sources. ~~It removes~~ to remove at least 80% of the moisture content whereby the dried organic material is converted into an energy storage form,

(b) ~~Submitting~~ submitting the energy storage form to sufficient heat from conventional oven or from sources of waste heat to further alter its chemical composition into a fuel, and

(c) exposing the fuel to microwaves to convert the energy contained within the fuel into a usable form of energy selected from thermal, electrical, high pressure, a plasma, ~~ionised~~ ionized air or gas and a fusion energy,

(d) whereby energy released is more than the input microwave energy and it is extracted by suitable means for further conversion.

2. (Currently Amended) The method according to ~~Claim~~ claim 1, wherein the energy storage form is carbonized, which can be stored for many days without any fermentation or natural deterioration.

3. (Currently Amended) The method according to ~~Claim 1 or Claim 2~~ claim 1, wherein the microwave operates at a frequency of 500 MHZ to 5000 MHZ and at a power of between 100 W to 100 kW.

4. (Currently Amended) The method according to ~~any one of the preceding claims~~ claim 1, wherein the organic material is organic waste or fresh organic matter.

5. (Currently Amended) The method according to ~~Claim~~ claim 4, wherein the organic waste is selected from waste vegetables, fruits, skins of fruits, manure, compost and meat scraps.

6. (Currently Amended) The method according to ~~Claim~~ claim 1, wherein the fuel prepared at step (b) is exposed to microwaves at step (c) in the following manner:

- (i) the prepared fuel is transferred to a glass chamber or a heat exchanger;
- (ii) the glass chamber or heat exchanger is either transferred to, or preferably housed within a microwave cavity or microwave oven,
- (iii) the microwave cavity or microwave oven is actuated whereby the prepared fuel is transformed into a flame or plasma of a temperature above 100°C.

7. (Currently Amended) The method ~~Claim~~ according to claim 6, wherein the prepared fuel is transformed into a blue flame or a plasma of a temperature above 400°C.

8. (Currently Amended) ~~A~~ The method according to ~~Claim~~ claim 6, wherein the plasma is generated in the presence or absence of the plasma initiator, which comprises ~~of~~ a metal or a non-metal or a compound of metal or non-metal.

9. (Currently Amended) The method of ~~Claim~~ claim 1, wherein the energy generated at step (c) is adapted for use in an internal combustion engine equipped with microwave igniters.

10. (Original) The method of claim 1, wherein the energy generated at step (c) is adapted to be used in a heating system or a cooling system.

11. (Currently Amended) The method of ~~Claim~~ claim 1, wherein a fraction of the output energy generated at step (c) is adapted to be fed-back for generating microwaves, the continuous supply of fuel makes the process self-sustaining and/or continuous, whereby organic material in the form of fuel converts into energy.

12. (Currently Amended) The method of claim 1, wherein the energy generated at step (c) is adapted to be used to produce plasma or an ~~ionised~~ ionized gas or air atmosphere, the plasma or ~~ionised~~ ionized gas or air atmosphere being available for use in a Magneto Hydro-Dynamic (MHD) process.

13. (Original) The method of claim 6, wherein the glass chamber or heat exchanger is optionally fed by a gas or air stream.

14. (Currently Amended) The method of ~~any one of Claims 6-13~~ claim 6, wherein the fuel is exposed to microwaves under a switching or valve control such that the temperature and pressure generated is maintained within desired parameters.

15. (Currently Amended) The method of ~~any one of Claims 6-14~~ claim 6, wherein the steps are monitored to ensure that the conversion of energy from the organic material is maintained at a temperature and pressure in a sustainable and/or continuous manner.

16. (Currently Amended) The method of ~~Claim~~ claim 12, wherein the MHD process is adapted to generate electric power from plasma or the resultant ~~ionised~~ ionized gas or air atmosphere either by using a permanent magnet or electromagnet or by inducing an electric current within a conductive coil such as copper.

17. (Currently Amended) ~~A~~ The method according to ~~any one of Claims 1-16,~~ claim 1 for use in a method of determining the energy value of an organic material, wherein the organic material has been prepared via steps (a) and (b) and exposed to microwaves at step (c), and wherein said material is transformed into a plasma, the properties of plasma generated and amount of energy released being a measure of the calorific value of the organic material.

18. (Currently Amended) ~~A~~ The method according to ~~Claim~~ claim 17, wherein the plasma properties used for determining the energy value of the organic material are selected from (i) the ~~colour~~ color of the plasma generated, (ii) the volume of the plasma

generated, (iii) the air pressure generated, (iv) the temperature of the plasma generated and (v) the efficiency of the plasma ~~generation~~ generated.

19. (Currently Amended) ~~A~~ The method according to ~~Claim claim~~ claim 6, wherein plasma generated at step (iii) is confined within the glass chamber or heat exchanger used at step (ii) and is available to be harnessed or extracted for further use.

20. (Currently Amended) ~~A~~ The method according to ~~Claim claim~~ claim 19, wherein the further use is for an internal combustion engine, to drive a heating or cooling, system, or to be further converted into thermal, electrical or high-pressure energy.

21. (Currently Amended) An apparatus useful in a method according to ~~any one of the preceding claims~~ claim 1, comprising:

- (a) a microwave cavity or microwave oven,
- (b) housed within the microwave cavity or microwave oven is a glass chamber, or a heat exchanger,
- (c) optionally an inlet for providing a gas or air stream, preferably heated, to the glass chamber or heat exchanger,
- (d) a means for harnessing or extracting the thermal, electrical, high pressure, plasma, ~~ionised~~ ionized gas or air, or fusion energy generated within the cavity,
- (e) a means to feed-back a fraction of the output-energy to generate microwaves, which makes the process self-sustaining on a continuous basis, and
- (f) an outlet for exhaust gases.

22. (Currently Amended) An apparatus according to claim 21, wherein the means for harnessing the plasma or ~~ionised~~ ionized gas or air[[,]] generated at step (c) ~~of the method of Claim 1~~, comprises a coil of a conductive material such that when in contact with the plasma, the plasma is ~~energised~~ energized and rotates or vibrates thereby inducing an electric current inside the environment of the coil and wherein the current induction in the coil applies a reactive force, thus confining the plasma and enabling the plasma to be harnessed.

23. (Currently Amended) An apparatus according to ~~Claim 21 or 22~~ claim 21 adapted for the confinement of plasma generated ~~by a method according to any one of the preceding claims.~~

24. (Currently Amended) An apparatus according to ~~Claim~~ claim 21, wherein the gas stream is air or oxygen, or a combustible oxygen mix.

25. (Currently Amended) An apparatus according to ~~Claim~~ claim 21, adapted for fitment and use in an internal combustion engine, heating system and/or electrical generation system.